

Remarks

Responsive to the outstanding Examiner's Action, Applicants have carefully studied the references cited by the Examiner and the Examiner's comments relative thereto. Favorable reconsideration of the application, as amended, is respectfully requested.

Applicants have amended claims 12, 26, and 28 and deleted claims 21 and 22. Claims 12-20 and 23-28 are pending in the present application.

Rejections Under 35 U.S.C. §112

Claims 12-28 were rejected under 35 U.S.C. §112 as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the art the inventors, at the time the application was filed, had possession of the claimed invention. Additionally, claims 12-28 were rejected under 35 U.S.C. §112 as being indefinite for failing to particularly point out and distinctly claim subject matter, which Applicants regard as the invention.

Applicants' Response to the Rejections Under 35 U.S.C. §112

Applicants submit amended claims 12, 26 and 28 for reconsideration. Applicants have removed the term "only" from claims 12 and 26 and replaced it with functional language that indicates that the score-lines extend parallel to the gas flow in order to achieve the desired tension relief in the surface of the sheet material. Applicants aver that it is inherent through the specification and drawings that the at least one score-line must extend in the direction parallel to gas flow in order to achieve the desired reduction in surface tension. Applicants submit that no new matter is added through the amendment.

Applicants have also amended claim 1 as suggested by the Examiner in the Office Action in order to remove the antecedent basis and clarify the present invention. With respect to claim 13, applicants submit the claim permits score-lines in any surface of the sheet material. Claim 26 has been amended to distinctly point out that strips of a second layer of sheet material are placed upon the surface of the first layer. The strips of a second layer of sheet material are placed in spaced apart relationship in order to provide score-lines. Claim 28 has also been amended to clarify the present invention. Also with respect to claim 28, applicants submit that the language indicating that the score-line corresponds to the smallest radius of curvature is not indefinite. The drawings and the language in the specification indicate that the score-line is placed in a area of the mounting article that is closely related to the smaller radius of curvature.

No new matter is added with the amended claims. Reconsideration of the amended claims is respectfully requested.

Rejection Under 35 U.S.C. §102

In the Office Action, claims 21-22 were rejected under 35 U.S.C. §102(b) as being anticipated, by JP 61-89916. The Examiner averred that the reference discloses the method of making a mounting article mounting article as claimed in the present invention.

Applicants' Response to the Rejections Under 35 U.S.C. §102

Applicants have deleted claims 21 and 22 from the application. Withdrawal of the rejection is respectfully requested.

Rejection Under 35 U.S.C. §102 and §103

In the Office Action, claims 12-19, 21-25, 27 were rejected under 35 U.S.C. §102(b) as being anticipated, or in the alternative, under 35 U.S.C. §103 as obvious over JP 61-89916. The Examiner stated that the cited reference discloses a pollution control device and a method for making a pollution control device as claimed in the present invention. Alternatively, the Examiner also averred that the direction of score-lines is an obvious choice for one skilled in the art.

Applicants' Response to the Rejection Under 35 U.S.C. §102 and 103

Applicants aver that the present invention is patentable over the JP 61-89916 reference. Applicants submit amended claim 12 for reconsideration by the Examiner. The alignment of the score-lines in this manner permit the desired surface tension relief. Applicants aver that the score-lines must be parallel to the gas flow upon placement of the mounting article around the pollution control element in order to achieve the advantageous surface tension relief.

The reference cited by the Examiner discloses a mat with concaves in grooves to reduce compressive pressure on a pollution control element. Since the reference fails to teach, suggest or claim the use of score-lines extending in a direction parallel to the flow of gas through a pollution control element to relieve surface tension in the sheet material, such reference would not render the amended claims of the present invention unpatentable.

Rejection Under 35 U.S.C. §103

In the Office Action, claims 16, 19-20, 23 were rejected under 35 U.S.C. §103 as being unpatentable over JP 61-89916 in view of JP 61313.

Applicants' Response to the Rejection Under 35 U.S.C. §103

Applicants respectfully submit that the present invention is patentable over the references cited by the Examiner. Independent claim 12 has been amended to overcome the rejections set forth by the Examiner in the previous rejection. Thus applicants aver that independent claim 12 is distinguished from the references for the foregoing reasons.

The JP 2-61313 reference cited by the Examiner discloses the use of holes and/or grooves formed in the surface of a buffer material to prevent the ceramic monolith from being pushed downstream during operation. The grooves noted by the Examiner, and indicated in FIG. 2 of the reference, show that the grooves extend partially across the mat and diagonally to the flow of gas through the monolith. The reference only shows grooves which extend diagonally across the mat. Applicants submit that the references, either individually or in combination, fail to teach, suggest or disclose score-lines parallel to the gas flow stream that reduce surface tension in the sheet material. Thus, applicants submit claims 16, 19-20, 27 are patentable over the references cited by the Examiner. Withdrawal of the rejection is respectfully requested.

Rejection Under 35 U.S.C. §103

In the Office Action, claims 26 and 28 were rejected under 35 U.S.C. §103 as being unpatentable over JP 61-89916 in view of Corn (5,332,609). The Examiner averred that the apparatus of JP 61-89916 is substantially the same as that of the instant claims, but fails to disclose a second sheet material. The Examiner stated that Corn provides a mat with more than one layer.

Applicants' Response to the Rejection Under 35 U.S.C. §103

Applicants submit that claims 26 and 28 are patentable over the references cited by the Examiner. Claim 26 is dependent upon claim 12 which has been distinguished from JP 61-89916 in the foregoing remarks. Claim 26 is directed to the use of strips of a second layer of sheet material to as depicted in FIGS. 7A and 7B and fully described in the specification on page 6 lines 3-16. The strips are placed in an adjacent manner in order to form score-lines.

The JP 61-89916 reference only discloses a single sheet of mounting material and fails to teach or suggest strips of a second sheet of mounting material to form score-lines.

Corn discloses a two layer mounting mat which utilizes a mechanical fastening means to hold the two sheets together. The outer sheet of mounting material in the reference does not include score-lines. Further, the reference fails to teach, suggest, or disclose the use of separate strips of mounting material placed in an adjacent manner to form score-lines. Applicants aver that the combination of references would not result in the invention of claim 26. Withdrawal of the rejection of claim 26 is respectfully requested.

Applicants submit that claim 28 is patentable over the cited references. Claim 28 is directed to the utilization of score-lines on a mounting article for an oval shaped pollution control element. The score-lines are specifically placed at an area corresponding to the smallest radius of curvature of the oval shaped monolith. Support for the claim is found on page 3, lines 1-28 of the specification and in FIGS. 3A, 3B, 4A and 4B.

The reference, either individually or in combination, fails to teach or suggest the use of score-lines to relieve surface tension, wherein the score-lines are located in an area of the mounting article that corresponds to the smaller radius of curvature of an oval shaped pollution control element. The references cited by the Examiner do not disclose either an oval shaped pollution control element or the placement of score-lines in a mounting article in a location corresponding to the smaller radius of curvature. Withdrawal of the rejection is respectfully requested.

Rejection Under 35 U.S.C. §103

In the Office Action, claims 12-25 and 27 were rejected under 35 U.S.C. §103 as being unpatentable over JP 2-61313 in view of JP 61-89916.

Applicants' Response to the Rejection Under 35 U.S.C. §103

Applicants submit that the present invention is patentable over JP 2-61313 in view of JP 61-89916. Claims 12-2 and 27 have been distinguished from the combination of references in the previous remarks. The references, either individually or in combination, fail to teach, suggest, or disclose the use of score-lines in a direction parallel to the flow of the gas stream to provide tension relief in a mounting article for a pollution control device. Withdrawal of the rejection is respectfully requested.

Rejection Under 35 U.S.C. §103

In the Office Action, claims 26 and 28 were rejected under 35 U.S.C. §103 as being unpatentable over JP 2-61313 in view of JP 61-89916 and in view of Corn (5,332,609).

Applicants' Response to the Rejection Under 35 U.S.C. §103

Applicants aver that the present invention is patentable over JP 2-61313 in view of JP 61-89916 and in view of Corn (5,332,609). Claims 26 and 28 have been distinguished from JPO 61-89916 and Corn in the previous remarks. The JP 2-61313 reference only discloses a single sheet of mounting material. The reference does not contemplate the placement of single strips of a second layer of sheet material in an adjacent manner to provide score-lines. Thus applicants aver that claim 26 is patentable over the cited references.

With respect to claim 28, the JP 2-61313 reference does not teach or disclose the specific use of score-lines on a mounting article wherein the score-lines are placed in a location corresponding to the smaller radius of curvature of an oval shaped pollution control element. The combination of references would not result in the invention of claim 28. Withdrawal of the rejection is respectfully requested.


Conclusion

In view of the foregoing amendments and remarks, favorable reconsideration of the present application and the passing of this case to issue with all claims allowed is courteously solicited.

Should the Examiner wish to discuss any aspect of this application, Applicants' attorney suggests a telephone interview in order to expedite the prosecution of the application.

Respectfully submitted,

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9/12/00	

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